

ABSTRACT OF THE DISCLOSURE

An occlusive implant delivery assembly includes a rapid response decoupling or detachment mechanism that does not effect significant migration of the implant during release. The assembly includes an occlusive implant device, such as an embolic coil, a pusher or device to carry the implant to the selected location, and an expandable coupling-decoupling mechanism for releasing the implant at the selected site. The mechanical construction provides rapid release times. In addition, the releasing mechanism generally operates without exerting any significant force on the implant, thereby avoiding any significant displacement of the implant during release.